Title Ripening behavior of mangaba (*Hancornia speciosa*) fruit stored at different temperatures

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Abstract

The ripening pattern of mangaba (*Hancornia speciosa* Gomes) fruit was studied during its post-harvest storage at different temperatures. Fruits which attained full development at half-ripe stage were harvested and initially stored at 6, 8, 10 and 12±1°C in chilled rooms for 4 days. After this period, the fruits were transferred to a room at 24±2°C and maintained for 5 days for monitoring of their ripening behavior. For control purposes, recently harvested fruits were stored at 24±2°C for 6 days. After storage of fruits at 24°C, all fruits were analyzed daily for vitamin C and soluble solids (°Brix) contents, titratable acidity, pH and firmness. In fruits stored directly at 24°C, there was a sharp fall in vitamin C and acid contents; however soluble solids increased after the second day of storage. Fruit firmness decreased, leading to the ripeness of the fruits and after 4 days of storage, the fruits turned totally ripe. The fruits which were initially maintained at 6 or 8°C did not show any significant difference in vitamin C, soluble solids and firmness levels up to 4 days. However, fruits stored at 10 and 12°C presented a sharp fall in firmness and an increase in soluble solids. These results indicate that fruits stored at 10 and 12°C did not retard the fruit ripening as it was verified in fruits initially stored at 6 and 8°C. It was further observed that independent of temperature, mangaba fruits ripen normally after removal from low-temperature storage.